



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/783,880

02/12/2001

Luis R. Lopez

052102-1011

1248

24504

7590

01/16/2004

EXAMINER

VO, TED T

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
100 GALLERIA PARKWAY, NW
STE 1750
ATLANTA, GA 30339-5948

ART UNIT

PAPER NUMBER

2122

DATE MAILED: 01/16/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/783,880

Applicant(s)

LOPEZ, LUIS R.

Examiner

Ted T. Vo

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the communication filed on 2/12/2001.
Claims 1-20 are pending in the application.

Priority

2. This application is filed under CIP on prior application No. 08/790,084, filed on 01/29/1997, and adds and claims additional disclosure not presented in the prior application.

See MPEP 2133.01 (Rejections of Continuation - In - Part (CIP)). When applicant files a continuation-in-part whose claims are not supported by the parent application, **the effective filing date is the filing date of the child CIP.**

Claims objection

3. Claims 3, 8, 13, and 18 include the limitation, "XML-complaint"; and claims 4, 9, 14, and 19 include the limitation "non-XML-complaint" are misspelling in accordance to the specification.

The specification uses "XML-compliant" and "non-XML-compliant", instead.

Appropriation correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 16-20 rejected under 35 U.S.C. 112, first paragraph, as being identified as Single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor (In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983).

Claims 16-20 led by recitation of claim 16, "***A means for developing an algorithmic representation based on a textual source code, comprising: deriving algorithmic flow information from the textual source code; and using hierarchical Flow Structure Markup Language grammar to encode the textual source code and the algorithmic flow information to create the algorithmic representation***", depends only on a recited property: "***A means***" (single means).

Single means of claims 16-20 covers every conceivable structure while the specification discloses at most only those known to the inventor.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. The claims 1-10 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 1-5: Claims 1-5 are claiming an apparatus which is led by

claim 1, where the claimed recitation of claim 1 is as followed: ***"An apparatus that develops an algorithmic representation based on a textual source code, comprising: first logic, the first logic deriving algorithmic flow information from the textual source code; and second logic, the second logic using hierarchical Flow Structure Markup Language grammar to encode the algorithmic flow information and the textual source code to create the algorithmic representation."***

Claim 1 thus is claiming an apparatus with '***first logic***' and '***second logic***', where there are no limitations that cause the apparatus to be tangibly embodied. Claim 1 recites the limitation that could be identified as programming code implemented in a paper with code such as "***first logic***" and "***second logic***". Such claim fails to be in the technological or useful arts and thus fails to recite patent eligible subject matters.

Claims 2-5 fail to remedy the deficiencies of independent claim 1.

- According to the analysis above, claims 1-5 are claiming software elements that are not tangible in computer hardware for causing the computer to execute in a practical manner. The claims 1-5 thus are programming per se and held nonstatutory.

As per claims 6-10: Claims 6-10 are claiming a method which is led by

claim 6, where the claimed recitation of claim 6 is as followed: ***"A method for developing an algorithmic representation based on a textual source code, the method comprising the steps of: deriving algorithmic flow information from the textual source code; and using hierarchical Flow Structure Markup Language grammar to encode the textual source code and the algorithmic flow information to create the algorithmic representation."***

Claim 6 thus is claiming an method with steps '***deriving algorithmic flow information***' and '***using hierarchical Flow Structure Markup Language grammar to encode***', where there are no limitations that cause the method to be tangibly embodied. Claim 6 recites the limitation that could be identified in the same manner of using pen and paper in coding. Such claim fails to be in the technological or useful arts and thus fails to recite patent eligible subject matters.

Claims 7-10 fail to remedy the deficiencies of independent claim 6.

- According to the analysis above, claims 6-10 are claiming a process that is not tangibly embodied, and are not being performed in computer hardware for causing the computer to execute in a practical manner. The claims 6-10 thus manipulate an abstract idea that fails to recite patent eligible subject matters, and are held nonstatutory.

8. Claims 16-20 are rejected under 35 U.S.C. 101 because the claimed invention is identified as a single means which is not supported by a well established utility because it covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor (In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983).

9. To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of application amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Muenzel, (US pub No. 2002/0004804 A1), effective filing date, 3-2000, priority on Provisional Application No. 60/192,147.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per claim 1:

Muenzel discloses a method directed to the creation of a browser-readable representation of an industrial control code (see page 2, paragraphs 0014 and 0025) by converting the industrial control code appended in a flowchart into the markup language such as XML (see FIG. 2 and see page 4, paragraph 0042, 'it would be converted, at 62, to markup format').

Muenzel's teaching covers the claim limitation of claim 1 where,

with regards to claim limitation, "**An apparatus that develops an algorithmic representation based on a textual source code, comprising:**

first logic, the first logic deriving algorithmic flow information from the textual source code",

see page 2, paragraph 0014, referring to reference's citation: 'The graphical programming language code [**first logic**] comprises an editor adapted to permit the user to create industrial automation control code'

[Examiner note: Herein, 'industrial automation control code' interprets the recitation, "**textual sourc**

Art Unit: 2122

code". Any appended and readable code implemented within a flowchart, including 'industrial automation control code' interprets 'Textual source code'; For example, see the flowchart in figure 3, and see page 4, lines 10-11 in paragraph 0043, 'appended source code']"); **and**

with regards to claim limitation, **"second logic, the second logic using hierarchical Flow Structure Markup Language grammar to encode the algorithmic flow information and the textual source code to create the algorithmic representation"**,

see FIG. 2 referring to the combination of reference numerals 52 and 60 for **"algorithmic flow information and the textual source code to"**, and reference numeral 62, 'CONVERT TO MARKUP LANGUAGE' for **"second logic"**.

As per claim 2:

Muenzel discloses, **"The apparatus of claim 1, wherein the algorithmic representation is viewable as a flowchart and wherein the flowchart can be graphically edited"**, see FIG. 2, referring to reference numerals 52 and 28.

As per claim 3:

Muenzel discloses, **"The apparatus of claim 1, wherein the Flow Structure Markup Language grammar is Extended Markup Language (XML)-complaint Flow Structure Markup Language grammar"**, see FIG. 2, referring to reference numeral 64.

As per claim 4:

Given the broad interpretation of **"non-XML-complaint Flow Structure Markup Language grammar"** in light of the specification page 11, line 22-25,

Muenzel discloses, **"The apparatus of claim 1, wherein the Flow Structure Markup Language grammar is non-XML-complaint Flow Structure Markup Language grammar"**, see page 3, paragraphs 0032 and 0033, referring to 'graphical programming language' and 'markup format'. The term 'markup format' covers a subset of grammars that is non-XML; and the term 'graphical programming language' covers the grammar that it not XML grammar.

Art Unit: 2122

As per claim 5:

Muenzel discloses, "*The apparatus of claim 2, wherein editing the flowchart results in the textual source code being automatically edited*", see FIG. 1, reference numeral 12.

As per claim 6: Claim 6 is a method claim that has the limitation corresponding to the claim 1. Claim 6 is rejected in the same reason as set forth in connecting to the rejection of claim 1.

As per claim 7: Claim 7 is a method claim that has the limitation corresponding to the claim 2. Claim 7 is rejected in the same reason as set forth in connecting to the rejection of claim 2.

As per claim 8: Claim 8 is a method claim that has the limitation corresponding to the claim 3. Claim 8 is rejected in the same reason as set forth in connecting to the rejection of claim 3.

As per claim 9: Claim 9 is a method claim that has the limitation corresponding to the claim 4. Claim 9 is rejected in the same reason as set forth in connecting to the rejection of claim 4.

As per claim 10: Claim 10 is a method claim that has the limitation corresponding to the claim 5. Claim 10 is rejected in the same reason as set forth in connecting to the rejection of claim 5.

As per claim 11: Claim 11 is a computer program embodied in a computer-readable medium claim that has the limitation corresponding to the claim 1. Claim 11 is rejected in the same reason as set forth in connecting to the rejection of claim 1.

As per claim 12: Claim 12 is a computer program embodied in a computer-readable medium claim that has the limitation corresponding to the claim 2. Claim 12 is rejected in the same reason as set forth in connecting to the rejection of claim 2.

As per claim 13: Claim 13 is a computer program embodied in a computer-readable medium claim that has the limitation corresponding to the claim 3. Claim 13 is rejected in the same reason as set forth in connecting to the rejection of claim 3.

As per claim 14: Claim 14 is a computer program embodied in a computer-readable medium claim that has the limitation corresponding to the claim 4. Claim 14 is rejected in the same reason as set forth in connecting to the rejection of claim 4.

Art Unit: 2122

As per claim 15: Claim 15 is a computer program embodied in a computer-readable medium claim that has the limitation corresponding to the claim 5. Claim 15 is rejected in the same reason as set forth in connecting to the rejection of claim 5.

As per claim 16: Claim 16 is a means claim that has the limitation corresponding to the claim 1. Claim 16 is rejected in the same reason as set forth in connecting to the rejection of claim 1.

As per claim 17: Claim 17 is a means claim that has the limitation corresponding to the claim 2. Claim 17 is rejected in the same reason as set forth in connecting to the rejection of claim 2.

As per claim 18: Claim 18 is a means claim that has the limitation corresponding to the claim 3. Claim 18 is rejected in the same reason as set forth in connecting to the rejection of claim 3.

As per claim 19: Claim 19 is a means claim that has the limitation corresponding to the claim 4. Claim 19 is rejected in the same reason as set forth in connecting to the rejection of claim 4.

As per claim 20: Claim 20 is a means claim that has the limitation corresponding to the claim 5. Claim 20 is rejected in the same reason as set forth in connecting to the rejection of claim 5.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pruitt, EP 0 661 631 A2, discloses a method of creating a structured flowchart using a programmable computer.

Yuen et al., "Assembly Language Software Development System", IEEE 1997, discloses a software tool that visualizes a flowchart of an assembly language program.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (703) 308-9049. The examiner can normally be

Art Unit: 2122

reached on Monday-Friday from 8:00 AM to 5:30 PM ET. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam, can be reached on (703) 305-4552.

The fax phone numbers:

(703) 872-9306 (for formal communication intended for entry);

(703) 746-5429 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

TED T. VO

Patent Examiner
Art Unit: 2122
January 9, 2004